

IN THE CLAIMS

Claims 1 and 81 are amended herein. All claims are reproduced below.

1. (Currently Amended) A system for printing time-based media data, the system comprising:

- a user interface for receiving user input, the user input specifying a multimedia function to perform on the time-based media and including a first amount of processing to be performed by a printer and a second amount of processing to be performed by a processing device;
- a printer, communicatively coupled to the user interface, adapted to perform the first amount of processing indicated by the received user input, and to instruct a processing device to perform the second amount of processing indicated by the received user input, in order to perform the specified multimedia function on the time-based media; and
- a processing device, adapted to perform the second amount of processing in response to instruction from the printer.

2. (Original) The system of claim 1 wherein the processing device includes the user interface.

3. (Original) The system of claim 1 wherein the printer includes the user interface.

4. (Original) The system of claim 1 wherein the user interface is on a device separate from the processing device and the printer.

5. (Original) The system of claim 2, 3 or 4 wherein the user interface displays status information about the performance of the multimedia function.

6. (Original) The system of claim 1 wherein the processing device is a personal computer.

7. (Original) The system of claim 1 wherein the multimedia function includes selecting a range of audio data in response to received input from the user.

8. (Original) The system of claim 1 wherein the multimedia function includes applying audio event detection to the time-based media data.

9. (Original) The system of claim 8 wherein the multimedia function further includes determining a confidence level associated with the audio event detection.

10. (Original) The system of claim 1 wherein the multimedia function includes applying a speaker segmentation function to the time-based media data.

11. (Original) The system of claim 1 or 10 wherein the multimedia function includes applying a speaker recognition function to the time-based media data.

12. (Original) The system of claim 1 wherein the multimedia function includes applying a sound source localization function to the time-based media data.

13. (Original) The system of claim 12 wherein the multimedia function further includes applying audio event detection to the time-based media data.

14. (Original) The system of claim 1 wherein the multimedia function includes applying a speech recognition function to the time-based media data.

15. (Original) The system of claim 14 wherein the multimedia function includes applying a profile analysis function to the time-based media data.

16. (Original) The system of claim 14 wherein the multimedia function includes applying an audio event detection function to the time-based media data.

17. (Original) The system of claim 16 wherein the multimedia function further includes applying a speaker recognition function to the time-based media data.

18. (Original) The system of claim 16 wherein the multimedia function further includes applying a speaker segmentation function to the time-based media data.

19. (Original) The system of claim 16 wherein the multimedia function further includes applying a sound localization function to the time-based media data.

20. (Original) The system of claim 1 wherein the multimedia function includes selecting a range of video data in response to received input from the user.

21. (Original) The system of claim 1 wherein the multimedia function includes applying a video event detection function to the time-based media data.

22. (Original) The system of claim 1 wherein the multimedia function includes applying a color histogram analysis function to the time-based media data.

23. (Original) The system of claim 1 wherein the multimedia function includes applying a face detection function to the time-based media data.

24. (Original) The system of claim 23 wherein the multimedia function includes applying a clustering function to the time-based media data to merge multiple instances of a face into a representative face image.

25. (Original) The system of claim 1 wherein the multimedia function includes

applying a face recognition function to the time-based media data.

26. (Original) The system of claim 1 wherein the multimedia function includes applying an optical character recognition function to the time-based media data.

27. (Original) The system of claim 26 wherein the multimedia function further includes applying a clustering function to the time-based media data to merge similar results of the optical character recognition.

28. (Original) The system of claim 1 wherein the multimedia function includes applying a motion analysis function to the time-based media data.

29. (Original) The system of claim 1 or claim 28 wherein the multimedia function includes applying a distance estimation function to the time-based media data.

30. (Original) The system of claim 1 wherein the multimedia function includes applying foreground/background segmentation function to the time-based media data.

31. (Original) The system of claim 1 wherein the multimedia function includes applying a scene segmentation function to the time-based media data.

32. (Previously presented) The system of claim 31 wherein the multimedia function further includes applying a face recognition function to the time-based media data.

33. (Original) The system of claim 31 wherein the multimedia function further includes applying a face detection function to the time-based media data.

34. (Original) The system of claim 31 wherein the multimedia function includes

applying an optical character recognition function to the time-based media data.

35. (Original) The system of claim 34 wherein the multimedia function further includes applying a face recognition function to the time-based media data.

36. (Original) The system of claim 34 wherein the multimedia function includes applying a face detection function to the time-based media data.

37. (Original) The system of claim 1 wherein the multimedia function includes applying an automobile recognition function to the time-based media data.

38. (Original) The system of claim 37 wherein the multimedia function further includes applying a motion analysis function to the time-based media data.

39. (Original) The system of claim 1 wherein the multimedia function includes applying a license plate recognition function to the time-based media data.

40. (Original) The system of claim 1 wherein the multimedia function includes applying a visual inspection function to the time-based media data.

41. (Original) The system of claim 1 wherein the user interface is configured to allow a user to control a compact disc (CD) device.

42. (Original) The system of claim 1 wherein the user interface is configured to allow a user to control a digital video disc (DVD) device.

43. (Original) The system of claim 1 wherein the user interface is configured to allow a user to control an audio tape device.

44. (Original) The system of claim 1 wherein the user interface is configured to allow a user to control a video tape device.

45. (Original) The system of claim 1 wherein the user interface is configured to allow a user to control a multimedia server.

46. (Original) The system of claim 1 wherein the user interface is configured to allow a user to control encryption hardware.

47. (Original) The system of claim 1 wherein the user interface is configured to allow a user to control audio sound localization hardware.

48. (Original) The system of claim 1 wherein the user interface is configured to allow a user to control motion detection hardware.

49. (Original) The system of claim 1 wherein the user interface is configured to allow a user to control a MIDI player.

50. (Original) The system of claim 1 wherein the user interface is configured to allow a user to control a cellular telephone.

51. (Original) The system of claim 1 wherein the user interface is configured to allow a user to control a two-way radio.

52. (Original) The system of claim 1 wherein the user interface is configured to allow a user to control a world wide web display.

53. (Original) The system of claim 1 wherein the user interface is configured to allow a user to control a climate sensor.

54. (Original) The system of claim 1 wherein the user interface is configured to allow a user to control a radio receiver.

55. (Original) The system of claim 1 wherein the processor is further configured to display results of the multimedia function on the display of the user interface.

56. (Previously presented) The printer of claim 1 wherein the processing device is a DVD drive.

57. (Previously presented) The printer of claim 1 wherein the processing device is a CD drive.

58. (Previously presented) The printer of claim 1 wherein the processing device is an audio tape drive.

59. (Previously presented) The printer of claim 1 wherein the processing device is a video cassette device.

60. (Previously presented) The printer of claim 1 wherein the processing device is a removable media device.

61. (Previously presented) The printer of claim 1 wherein the processing device is an embedded audio recorder.

62. (Previously presented) The printer of claim 1 wherein the processing device is an embedded video recorder.

63. (Previously presented) The printer of claim 1 wherein the processing device is a non-volatile storage device.

64. (Previously presented) The printer of claim 1 wherein the processing device is an embedded multimedia server.

65. (Previously presented) The printer of claim 1 wherein the processing device is audio encryption hardware.

66. (Previously presented) The printer of claim 1 wherein the processing device is video encryption hardware.

67. (Previously presented) The printer of claim 1 wherein the processing device is audio sound localization hardware.

68. (Previously presented) The printer of claim 1 wherein the processing device is a cellular telephone.

69. (Previously presented) The printer of claim 1 wherein the processing device is a two-way radio.

70. (Previously presented) The printer of claim 1 wherein the processing device is a world-wide web display.

71. (Previously presented) The printer of claim 1 wherein the processing device is a radio receiver for receiving AM signals.

72. (Previously presented) The printer of claim 1 wherein the processing device is a radio receiver for receiving FM signals.

73. (Previously presented) The printer of claim 1 wherein the processing device is a radio receiver for receiving short wave signals.

74. (Previously presented) The printer of claim 1 wherein the processing device is a satellite radio receiver.

75. (Previously presented) The printer of claim 1 wherein the processing device is a weather alert receiver.

76. (Previously presented) The printer of claim 1 wherein the processing device is an emergency alert monitor for receiving emergency broadcast system alerts.

77. (Previously presented) The printer of claim 1 wherein the processing device is hardware for performing VGA screen captures.

78. (Previously presented) The printer of claim 1 wherein the processing device is hardware for performing audio capture.

79. (Previously presented) The printer of claim 1 wherein the processing device is hardware for capturing data from an electronic pen.

80. (Previously presented) The printer of claim 1 wherein the processing device is a disposable media writer.

81. (Currently Amended) A method for printing time-based media, the method comprising:

receiving time-based media data from a media source;

receiving user input, the user input specifying a multimedia function to perform on the time-based media, an amount of processing to be performed by a

printer, and an amount of processing to be performed by a processing device; determining from the user input a portion of the processing to be allocated to the

printer and a portion of the processing to be allocated to the processing device;

allocating the determined processing portions to the printer and the processing device based on the user input;

performing, by the printer, the allocated portion of processing to carry out the specified multimedia function;

performing, by the processing device, the allocated portion of processing to carry out the specified multimedia function;

producing output on the printer associated with the processed media data; and

producing an electronic output associated with the processed media data.

82. (Original) The method of claim 81 wherein the user input is received at the printer.

83. (Original) The method of claim 81 wherein the user input is received at the processing device.

84. (Original) The method of claim 81 wherein the processing device is a personal computer.

85. (Original) The method of claim 81 wherein the multimedia function includes selecting a range of audio data in response to received input from the user.

86. (Original) The method of claim 81 wherein the multimedia function includes applying audio event detection to the time-based media data.

87. (Original) The method of claim 86 wherein the multimedia function further includes determining a confidence level associated with the audio event detection.

88. (Original) The method of claim 81 wherein the multimedia function includes applying a speaker segmentation function to the time-based media data.

89. (Original) The method of claim 81 or 88 wherein the multimedia function includes applying a speaker recognition function to the time-based media data.

90. (Original) The method of claim 81 wherein the multimedia function includes applying a sound source localization function to the time-based media data.

91. (Original) The method of claim 90 wherein the multimedia function further includes applying audio event detection to the time-based media data.

92. (Original) The method of claim 81 wherein the multimedia function includes applying a speech recognition function to the time-based media data.

93. (Original) The method of claim 92 wherein the multimedia function includes applying a profile analysis function to the time-based media data.

94. (Original) The method of claim 92 wherein the multimedia function includes applying an audio event detection function to the time-based media data.

95. (Original) The method of claim 94 wherein the multimedia function further includes applying a speaker recognition function to the time-based media data.

96. (Original) The method of claim 94 wherein the multimedia function further includes applying a speaker segmentation function to the time-based media data.

97. (Original) The method of claim 94 wherein the multimedia function further includes applying a sound localization function to the time-based media data.

98. (Original) The method of claim 81 wherein the multimedia function includes selecting a range of video data in response to received input from the user.

99. (Original) The method of claim 81 wherein the multimedia function includes applying a video event detection function to the time-based media data.

100. (Original) The method of claim 81 wherein the multimedia function includes applying a color histogram analysis function to the time-based media data.

101. (Original) The method of claim 81 wherein the multimedia function includes applying a face detection function to the time-based media data.

102. (Original) The method of claim 101 wherein the multimedia function includes applying a clustering function to the time-based media data to merge multiple instances of a face into a representative face image.

103. (Original) The method of claim 81 wherein the multimedia function includes applying a face recognition function to the time-based media data.

104. (Original) The method of claim 81 wherein the multimedia function includes applying an optical character recognition function to the time-based media data.

105. (Original) The method of claim 104 wherein the multimedia function further includes applying a clustering function to the time-based media data to merge similar results of the optical character recognition.

106. (Original) The method of claim 81 wherein the multimedia function includes applying a motion analysis function to the time-based media data.

107. (Original) The method of claim 81 or claim 106 wherein the multimedia function includes applying a distance estimation function to the time-based media data.

108. (Original) The method of claim 81 wherein the multimedia function includes applying foreground/background segmentation function to the time-based media data.

109. (Original) The method of claim 81 wherein the multimedia function includes applying a scene segmentation function to the time-based media data.

110. (Previously Presented) The method of claim 109 wherein the multimedia function further includes applying a face recognition function to the time-based media data.

111. (Original) The method of claim 109 wherein the multimedia function further includes applying a face detection function to the time-based media data.

112. (Original) The method of claim 109 wherein the multimedia function includes applying an optical character recognition function to the time-based media data.

113. (Original) The method of claim 112 wherein the multimedia function further includes applying a face recognition function to the time-based media data.

114. (Original) The method of claim 112 wherein the multimedia function includes applying a face detection function to the time-based media data.

115. (Original) The method of claim 81 wherein the multimedia function includes applying an automobile recognition function to the time-based media data.

116. (Original) The method of claim 115 wherein the multimedia function further includes applying a motion analysis function to the time-based media data.

117. (Original) The method of claim 81 wherein the multimedia function includes applying a license plate recognition function to the time-based media data.

118. (Original) The method of claim 81 wherein the multimedia function includes applying a visual inspection function to the time-based media data.